Author Index
Volume 62, 2004

A

Aasmul, Mona.
Reactions of Arylhalocarbenes with Vinyl Isocyanates. 143

Abe, Hitoshi.
Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Acosta, Delicia E.
Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Adenu, Gilbert.
Intramolecular [4+3] Cycloadditions. Towards a Synthesis of Widdrol. 583

Ambhaikar, Narendra B.
A Uniquely Accessible Route to the Diastereoselective Synthesis of Azetine Derivatives. 217

Aoki, Shin-ya.
Total Syntheses of Natural Pseurotins A and F_2 and Aza-spirene. 161

Arai, Midori A.
Spiro Bis(isoxazole) as a New Chiral Ligand. 831

Asakawa, Yoshinori.
Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

Atanassov, Plamen K.
Synthesis of 3-Acetyl-*N*-aryl-4-diethylaminoselenet-2(2*H*)-imines from 4-Diethylamino-3-butyn-2-one and Aryl Iso-selenocyanates. 521

B

Banwell, Martin G.
Stereoselective Total Synthesis of the Nonenolide (+)-Microcarpalide. 713

Barnes, Charles L.
Intramolecular [4+3] Cycloadditions. Towards a Synthesis of Widdrol. 583

Barriault, Louis.
Microwave Assisted Pericyclic Reactions in Cascade to Construct Decalin Frameworks Possessing Quaternary Centers. Scope and Limitations. 735

Begum, Shahnaz.
Facial Selectivity in Nucleophilic Epoxidation of 3-Aryl-2-phosphonoacrylates Induced by the (-)-8-Phenylmenthyl Moiety as a Chiral Auxiliary. 251

Bexrud, Jason A.
Total Synthesis of (±)-Xyloketal D and Model Studies towards the Total Synthesis of (-)-Xyloketal A. 445

Brodbelt, Jennifer S.
Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of Cage-annulated Azacrown Ethers. 279

C

Cannon, Kevin C.
Azabicyclo[2.1.1]hexanes. A Review. 877

Cha, Jin Kun.
An Improved Synthesis of the Tricyclic Core of Sarains by a 3-Oxidopyridinium Betaine Cycloaddition. 407

Chakrabarty, Manas.
A Novel, Expedient Synthesis of Thiazolo[4,5-*c*]- and -[5,4-*b*]carbazoles. 779

Chan, Man-Kong.
Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Chan, Shu-Sun.
Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Che, Qinglin.
Oxidative Addition of Chloro- and Dichloroacetic Acid to Alkenes to Give α-Chloro- and α,α-Dichlorobutyrolactones with Manganese(III) Acetate. 325

Chen, Chien-Chih.
Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Choi, Michael C. K.
Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Cleator, Ed.
The Synthesis of (-)-Gloeosporone, a Potent Fungal Auto-inhibitor of Spore Germination Using a π-Allyltricarbonyl-iron Lactone Complex and a New Reductive Decomplex-ation Procedure for the Installation of the Embedded 1,7-Diol Component of the Natural Product. 619

Cortright, Sarah B.
Enantioenriched Axially Chiral β-Diketimines: Determination of the IAN-amine Barrier to Atropisomerization. 223
Crich, David.
Cyclofunctionalization of Unsaturated Alcohols, Phenols, Acids, and Sulfonamides with 1-Benzenesulfinyl Piperidine and Trifluoromethanesulfonic Anhydride. 827
Crimmins, Michael T.
A Unified Approach to the Enantioselective Synthesis of 2,6-*cis* and *trans* Disubstituted Tetrahydropyranones. 179

D

Damiano, Bruce P.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543
David, Olivier.
New Access to Chiral Cyclic ω-Oxygenated β-Enamino Esters by Intramolecular Aminocyclisation Reactions. 839
De Corte, Bart.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543
Denissova, Irina.
Microwave Assisted Pericyclic Reactions in Cascade to Construct Decalin Frameworks Possessing Quaternary Centers. Scope and Limitations. 735
Diaz, Caroline J.
A Unified Approach to the Enantioselective Synthesis of 2,6-*cis* and *trans* Disubstituted Tetrahydropyranones. 179
Donnell, Andrew F.
Aldol Reactions of Unsubstituted β-Lactams. Studies of a β-Glycine Enolate Equivalent. 167
Dorsch, Warren E.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543
Dücker, Barbara.
A Highly Flexible Route to 1,2,3,4,5,6-Hexahydro-5-hydroxypyrimidin-2-ones as Potential HIV Protease Inhibitors. 559
Durairaj, Anita.
8-Oxabicyclo[3.2.1]octa-3,6-dien-2-one Synthesis Using a Pyrylium 3-Oxide Precursor Derived from a 4-Oxo-4*H*-pyrazole 1,2-Dioxide. 387
Dushin, Russell G.
Solid-Phase Synthesis of Cyclic Glycopeptides Related to Mannopeptimycin Derivatives. 131
Dyck, Brian.
Synthesis of Pyrrolopyrimidine CRF-R1 Antagonists Containing a Tricyclic Core *via* an Intramolecular Heck Reaction. 191

E

Edmondson, Scott D.
Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203
Emmitte, Kyle A.
A Unified Approach to the Enantioselective Synthesis of 2,6-*cis* and *trans* Disubstituted Tetrahydropyranones. 179
Enders, Dieter.
A Highly Flexible Route to 1,2,3,4,5,6-Hexahydro-5-hydroxypyrimidin-2-ones as Potential HIV Protease Inhibitors. 559

F

Farand, Julie A.
Microwave Assisted Pericyclic Reactions in Cascade to Construct Decalin Frameworks Possessing Quaternary Centers. Scope and Limitations. 735
Fargeau-Bellassoued, Marie-Claude.
New Access to Chiral Cyclic ω-Oxygenated β-Enamino Esters by Intramolecular Aminocyclisation Reactions. 839
Freeman, Jeremiah P.
Reductive Methylation/Phosphorylation of 3,4-Diazacyclopentadienone *N*-Oxides with Trimethyl Phosphite. 847
Freeman, Rebecca P.
Total Synthesis of (±)-Xyloketal D and Model Studies towards the Total Synthesis of (-)-Xyloketal A. 445
Fujimori, Kunihide.
Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463
Fujioka, Hiromichi.
Unexpected Reaction of 2,3-Epoxy Sulfonates: Novel Formation of Two Enones with Reversed Substituents at α- and β-Positions from the Single Isomer. 453
Fujishima, Toshie.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with

an Amide Conjugate. 423

Fukuda, Yu-ichi.

A Formal Total Synthesis of (-)-Limaspermine. 787

Futamura, Junko.

Unexpected Reaction of 2,3-Epoxy Sulfonates: Novel Formation of Two Enones with Reversed Substituents at α- and β-Positions from the Single Isomer. 453

G

Galemmo Jr., Robert A.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Garg, Vidisha.

A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

Gauthier, Diane A.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Ghosh, Nandita.

A Novel, Expedient Synthesis of Thiazolo[4,5-*c*]- and -[5,4-*b*]carbazoles. 779

Ghosh, Shyamali.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Gong, Yong.

A Direct Approach to the Synthesis of 5-Aryl-4-chloropyridazinone: From Microwave Assisted Catalyst Screen to Room Temperature Regio- and Chemoselective Suzuki Arylation. 851

Goto, Michimasa.

Preferential Conformation of the Six-membered Cyclic Compounds Bearing Both Trimethylsiloxy(or Methoxymethyleneoxy) and Tributylstannyl Groups at the Geminal Position. 229

Goto, Seiki.

An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Gotoh, Yoshiaki.

Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

Guay, Marc E.

Reductive Methylation/Phosphorylation of 3,4-Diazacyclopentadienone *N*-Oxides with Trimethyl Phosphite. 847

H

Ham, Won-Hun.

Synthesis of (+)-1-Deoxygalactonojirimycin. 333

Hamazaki, Hideki.

Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Hansen, John F.

8-Oxabicyclo[3.2.1]octa-3,6-dien-2-one Synthesis Using a Pyrylium 3-Oxide Precursor Derived from a 4-Oxo-4*H*-pyrazole 1,2-Dioxide. 387

Hanzawa, Yuji.

Stereoselective Zirconocene-mediated Ring Transformation of 2-Vinylheterocycles to Vinylcarbocycles. 297

Harada, Hironori.

Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Harayama, Takashi.

Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Harigaya, Yoshihiro.

A Novel, Expedient Synthesis of Thiazolo[4,5-*c*]- and -[5,4-*b*]carbazoles. 779

Harmata, Michael.

Intramolecular [4+3] Cycloadditions. Towards a Synthesis of Widdrol. 583

Harter, Jürgen.

The Synthesis of (-)-Gloeosporone, a Potent Fungal Autoinhibitor of Spore Germination Using a π-Allyltricarbonyliron Lactone Complex and a New Reductive Decomplexation Procedure for the Installation of the Embedded 1,7-Diol Component of the Natural Product. 619

Haruna, Noriko.

Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Hashimoto, Toshihiro.

Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

Hayashi, Naoto.

Design and Synthesis of Pyrrolo[2,1-*c*][1,4]benzodiazepine (PBD)- Polyaminoalkyl Conjugates by the Use of S_NAr Reaction of 2-Nitro-5-fluorobenzoate Precursor as Key Reaction. 693

Hayashi, Toshikatsu.

A Novel Preparation of 3-Hydroxy-3*H*-indole-3-ethanamines and -3*H*-indole-3-acetamides Having either a 4-Morpholinyl or 1-Pyrrolidinyl Group at the 2-Position. 437

Hayashibe, Satoshi.

Regioselective Synthesis of 6- and 7-Substituted Thiazolo-[3,2-*a*]benzimidazole Derivatives Using Crystallization Induced Regioisomerization. 815

Hayes, Patricia Y.

Synthesis in the Plakortone Series: Plakortone E. 173

He, Wei.

A Direct Approach to the Synthesis of 5-Aryl-4-chloropyridazinone: From Microwave Assisted Catalyst Screen to Room Temperature Regio- and Chemoselective Suzuki Arylation. 851

Heimgartner, Heinz.

Synthesis of 3-Acetyl-*N*-aryl-4-diethylaminoselenet-2(2*H*)-imines from 4-Diethylamino-3-butyn-2-one and Aryl Isoselenocyanates. 521

Herold, Marike.

A Uniquely Accessible Route to the Diastereoselective Synthesis of Azetine Derivatives. 217

Hirano, Shinya.

Acid-catalyzed Cyclization Reactions of 2,2'-Bis(diarylhydroxymethyl)biphenyls to 5,5,7,7-Tetraaryl-5,7-dihydrodibenzo[*c*,*e*]oxepins in the Solid State. 749

Hirasawa, Yusuke.

Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Honda, Toshio.

A Formal Synthesis of a Muscarinic M_1 Receptor Antagonist, (-)-TAN1251A. 343

Honzawa, Shinobu.

Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Hori, Akihiro.

Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Huang, Zilin.

Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of Cage-annulated Azacrown Ethers. 279

I

Iida, Hirokazu.

Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Iida, Hirokazu.

Design and Synthesis of Pyrrolo[2,1-*c*][1,4]benzodiazepine (PBD)- Polyaminoalkyl Conjugates by the Use of S_NAr Reaction of 2-Nitro-5-fluorobenzoate Precursor as Key Reaction. 693

Imafuku, Kimiaki.

Reactions of 4-Methoxy-2-(4-methoxyphenyl)-9-oxocyclohepta[*b*]pyrylium Perchlorate with Active Methylene Compounds. 667

Ishihara, Tetsuya.

Photo-induced C-C Bond Formation of 1,3-Dimethylthymine and Its Related Compounds with Naphthalene. 213

Ishikawa, Hiroyuki.

Synthesis of 2-Arylbenzothiazoles from 2-Aminobenzenethiol and Aryl Aldehydes Catalyzed by Scandium Triflate. 197

Ito, Shingo.

Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Itoh, Takashi.

Synthesis of 2-Arylbenzothiazoles from 2-Aminobenzenethiol and Aryl Aldehydes Catalyzed by Scandium Triflate. 197

J

Johnston, Jeffrey N.

Enantioenriched Axially Chiral β-Diketimines: Determination of the IAN-amine Barrier to Atropisomerization. 223

Jung, Bon Young.

The Fungicidal Benzothiazole Methoxyacrylates: Synthesis, Conformational Analysis and Fungicidal Activity. 793

K

Kahraman, Mehmet.

Intramolecular [4+3] Cycloadditions. Towards a Synthesis of Widdrol. 583

Kamikubo, Takashi.

Regioselective Synthesis of 6- and 7-Substituted Thiazolo-[3,2-*a*]benzimidazole Derivatives Using Crystallization Induced Regioisomerization. 815

Kammler, David C.

Aldol Reactions of Unsubstituted β-Lactams. Studies of a β-Glycine Enolate Equivalent. 167

Kato, Takahiro.

Spiro Bis(isoxazole) as a New Chiral Ligand. 831

Kawaguchi, Ken-ichi.

Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Kawata, Yoko.

Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

Kida, Kiyoshi.

Preferential Conformation of the Six-membered Cyclic Compounds Bearing Both Trimethylsiloxy(or Methoxymethyleneoxy) and Tributylstannyl Groups at the Geminal Position. 229

Kikuchi, Kazumi.

Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Kilpatrick, Andre L.

8-Oxabicyclo[3.2.1]octa-3,6-dien-2-one Synthesis Using a Pyrylium 3-Oxide Precursor Derived from a 4-Oxo-4*H*-pyrazole 1,2-Dioxide. 387

Kim, Jong Chul.

Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Kimizuka, Tetsuya.

An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Kinney, William A.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Kishimoto, Seishi.

Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Kita, Yasuyuki.

Unexpected Reaction of 2,3-Epoxy Sulfonates: Novel Formation of Two Enones with Reversed Substituents at α- and β-Positions from the Single Isomer. 453

Kitching, William.

Synthesis in the Plakortone Series: Plakortone E. 173

Kittaka, Atsushi.

Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Kiyono, Hiromichi.

Stereoselective Zirconocene-mediated Ring Transformation of 2-Vinylheterocycles to Vinylcarbocycles. 297

Kobayashi, Tomoshige.

A New Molecular Receptor Based on Thiophene Congener of Tröger's Base: Selective Binding with Aliphatic and Aromatic Dicarboxylic Acids. 399

Koltunov, Konstantin Yu.

Reactions of 2-, 3-, and 4-Quinolinols with Cyclohexane and Benzene in Superacids. 757

Kondo, Yoji.

[2π+2σ] Type Cycloaddition Reactions of Naphtho[*b*]cyclopropene with Trithiocarbonyl Compounds to Form 1,3-Dihydronaphtho[2,3-*c*]thiophene Derivatives. 773

Kotani, Yukihiro.

Preferential Conformation of the Six-membered Cyclic Compounds Bearing Both Trimethylsiloxy(or Methoxymethyleneoxy) and Tributylstannyl Groups at the Geminal Position. 229

Kozawa, Kozo.

Synthesis and Properties of Azaperylenedicarboximide Derivative. 821

Krow, Grant R.

Azabicyclo[2.1.1]hexanes. A Review. 877

Kubo, Kanji.

Synthesis and Mercurophilic Properties of 5,8,14,17-Tetraoxa-2,11,20-trithiabicyclo[19.4.1]hexacosa-21,23,25-trien-26-one. 149

Kumar, Manoj.

A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

Kuramochi, Takahiro.

Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Kuroda, Shigeyasu.

Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Kuroki, Kenji.

A New Synthesis of Mono- and Dibenzosapphyrins. 365

Kwon, Bo-Sung.

Synthesis of the Key Intermediates for the Core 3,4-Dihydroisocoumarin Structures of AI-77-B and Apicularen from *ortho*-Metallated Dianions of *t*-Butylbenzamides and Functionalized Epoxides. 137

Kyogoku, Mayumi.

Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

L

Lai, Huiguo.

Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of

Cage-annulated Azacrown Ethers. 279

Lee, Hee Bong.

An Improved Synthesis of the Tricyclic Core of Sarains by a 3-Oxidopyridinium Betaine Cycloaddition. 407

Lee, Hyoung Ik.

An Improved Synthesis of the Tricyclic Core of Sarains by a 3-Oxidopyridinium Betaine Cycloaddition. 407

Lee, Kee-Young.

Synthesis of (+)-1-Deoxygalactonojirimycin. 333

Leiting, Barbara.

Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Lewis, Joan M.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Ley, Steven V.

Preface. 1

Ley, Steven V.

The Synthesis of (-)-Gloeosporone, a Potent Fungal Autoinhibitor of Spore Germination Using a π-Allyltricarbonyliron Lactone Complex and a New Reductive Decomplexation Procedure for the Installation of the Embedded 1,7-Diol Component of the Natural Product. 619

Lhommet, Gérard.

New Access to Chiral Cyclic ω-Oxygenated β-Enamino Esters by Intramolecular Aminocyclisation Reactions. 839

Linden, Anthony.

Synthesis of 3-Acetyl-*N*-aryl-4-diethylaminoselenet-2(2*H*)-imines from 4-Diethylamino-3-butyn-2-one and Aryl Isoselenocyanates. 521

Liotta, Dennis C.

A Uniquely Accessible Route to the Diastereoselective Synthesis of Azetine Derivatives. 217

Loong, David T. J.

Stereoselective Total Synthesis of the Nonenolide (+)-Microcarpalide. 713

Lown, J. William.

Design and Synthesis of Pyrrolo[2,1-*c*][1,4]benzodiazepine (PBD)- Polyaminoalkyl Conjugates by the Use of S_NAr Reaction of 2-Nitro-5-fluorobenzoate Precursor as Key Reaction. 693

Lu, Yuhua.

Syntheses of Oxazolidinone, Imidazolidinone and Thiazolidinone Derivatives Using a Polymer-supported Diphenylphosphoryl Azide. 869

Luci, Diane K.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

M

Maeda, Jun.

Geometrically Selective Synthesis of Sulfur-containing Heterocycles by Intramolecular Pd-catalyzed Sulfinylzincation. 263

Maeno, Kyoichi.

An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Maezaki, Naoyoshi.

Geometrically Selective Synthesis of Sulfur-containing Heterocycles by Intramolecular Pd-catalyzed Sulfinylzincation. 263

Malpass, John R.

Meisenheimer and Other Rearrangements of *N*-Oxides Derived from 2-Azabicyclo[2.2.1]hept-5-enes; the Influence of Reaction Conditions and Stereochemistry at Nitrogen. 679

Mandai, Tadakatsu.

A Stereocontrolled Synthesis of Hapalosin. 185

Marchand, Alan P.

Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of Cage-annulated Azacrown Ethers. 279

Marsilio, Frank.

Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Maryanoff, Bruce E.

A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Mastracchio, Anthony.

Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Matsumoto, Kiyoshi.

Ti-triol Catalysed Trimethylsilylcyanation of Acetophenones under High Pressure. 643

Matsumoto, Kiyoshi.

Design and Synthesis of Pyrrolo[2,1-*c*][1,4]benzodiazepine (PBD)- Polyaminoalkyl Conjugates by the Use of S_NAr Reaction of 2-Nitro-5-fluorobenzoate Precursor as Key Reaction. 693

Matsuura, Nobuyasu.

Synthetic Studies of Proanthocyanidins. Part 5. Highly Stereoselective Synthesis and Inhibitory Activity of Maillard Reaction of 3,4-*trans* Catechin and Epicatechin Dimers, Procyanidin B1, B2, B3, B4 and Their Acetates. 479

Matsuya, Yuji.
Synthesis of New Potentially Antiviral Furan-fused Compounds by Thermolysis of Benzocyclobutene Derivatives. 207

McCarthy, James R.
Synthesis of Pyrrolopyrimidine CRF-R1 Antagonists Containing a Tricyclic Core *via* an Intramolecular Heck Reaction. 191

McKim, Artie S.
Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of Cage-annulated Azacrown Ethers. 279

Miyafuji, Akio.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Miyatake, Ryuta.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Mizutani, Hirotake.
A Formal Synthesis of a Muscarinic M_1 Receptor Antagonist, (-)-TAN1251A. 343

Mori, Akira.
Synthesis and Mercurophilic Properties of 5,8,14,17-Tetraoxa-2,11,20-trithiabicyclo[19.4.1]hexacosa-21,23,25-trien-26-one. 149

Morikami, Yosiaki.
Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Morita, Yasuo.
Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

Moriwaki, Takashi.
A New Molecular Receptor Based on Thiophene Congener of Tröger's Base: Selective Binding with Aliphatic and Aromatic Dicarboxylic Acids. 399

Mouri, Masaru.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

N

Nagao, Yoshimitsu.
Preferential Conformation of the Six-membered Cyclic Compounds Bearing Both Trimethylsiloxy(or Methoxymethyleneoxy) and Tributylstannyl Groups at the Geminal Position. 229

Nagao, Yukinori.
Synthesis and Properties of Azaperylenedicarboximide Derivative. 821

Nagaoka, Mamiko.
Synthesis of New Potentially Antiviral Furan-fused Compounds by Thermolysis of Benzocyclobutene Derivatives. 207

Nagata, Kazuhiro.
Synthesis of 2-Arylbenzothiazoles from 2-Aminobenzenethiol and Aryl Aldehydes Catalyzed by Scandium Triflate. 197

Nakagawa, Satoshi.
Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Nakai, Yu-ya.
A Novel Preparation of 3-Hydroxy-3*H*-indole-3-ethanamines and -3*H*-indole-3-acetamides Having Either a 4-Morpholinyl or 1-Pyrrolidinyl Group at the 2-Position. 437

Nakajima, Noriyuki.
Synthetic Studies of Proanthocyanidins. Part 5. Highly Stereoselective Synthesis and Inhibitory Activity of Maillard Reaction of 3,4-*trans* Catechin and Epicatechin Dimers, Procyanidin B1, B2, B3, B4 and Their Acetates. 479

Nakamura, Atsushi.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Nakata, Yasunobu.
Photo-induced C-C Bond Formation of 1,3-Dimethylthymine and Its Related Compounds with Naphthalene. 213

Nemoto, Hideo.
Synthesis of New Potentially Antiviral Furan-fused Compounds by Thermolysis of Benzocyclobutene Derivatives. 207

Nemoto, Hisao.
Developments of Enediyne Model Compounds Generating Biradicals with an Enhanced Radical Character – Regulation of Triggering Devices. 503

Nishikawa, Teruhiko.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Nishimura, Tatsuya.
Synthesis and Mercurophilic Properties of 5,8,14,17-Tetraoxa-2,11,20-trithiabicyclo[19.4.1]hexacosa-21,23,25-trien-26-one. 149

Nishio, Takehiko.

Acylation and Alkoxycarbonylation of Benzoxazoline-2-thione and Benzothiazoline-2-thione. 313

Nishioka, Hiromi.

Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Noma,Yoshiaki.

Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

O

Ochi, Naoyuki.

A New Synthesis of Mono- and Dibenzosapphyrins. 365

Oda, Mitsunori.

Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

O'Doherty, George A.

Facial Selectivity of the Sharpless Bromine Catalyzed Aziridination. 635

Oh, Chang-Young.

Synthesis of (+)-1-Deoxygalactonojirimycin. 333

Ohba, Yusuke.

Unexpected Reaction of 2,3-Epoxy Sulfonates: Novel Formation of Two Enones with Reversed Substituents at α- and β-Positions from the Single Isomer. 453

Ohkata, Katsuo.

Computational Study on Conformational Features of Protonated 5*H*,7*H*-Dibenzo[*b*,*g*][1,5]dithiocin Oxides by *ab initio* MO Calculations. 235

Ohkata, Katsuo.

Facial Selectivity in Nucleophilic Epoxidation of 3-Aryl-2-phosphonoacrylates Induced by the (-)-8-Phenylmenthyl Moiety as a Chiral Auxiliary. 251

Ohkita, Masakazu.

[2π+2σ] Type Cycloaddition Reactions of Naphtho[*b*]cyclopropene with Trithiocarbonyl Compounds to Form 1,3-Dihydronaphtho[2,3-*c*]thiophene Derivatives. 773

Ohkura, Kazue.

Photo-induced C-C Bond Formation of 1,3-Dimethylthymine and Its Related Compounds with Naphthalene. 213

Ohsawa, Akio.

Synthesis of 2-Arylbenzothiazoles from 2-Aminobenzenethiol and Aryl Aldehydes Catalyzed by Scandium Triflate. 197

Ohta, Akira.

Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Ohzone, Yasuhiro.

[2π+2σ] Type Cycloaddition Reactions of Naphtho[*b*]cyclopropene with Trithiocarbonyl Compounds to Form 1,3-Dihydronaphtho[2,3-*c*]thiophene Derivatives. 773

Oi, Takahiro.

Total Syntheses of Natural Pseurotins A and F_2 and Azaspirene. 161

Okada, Keiji.

Computational Study on Conformational Features of Protonated 5*H*,7*H*-Dibenzo[*b*,*g*][1,5]dithiocin Oxides by *ab initio* MO Calculations. 235

Okazaki, Toshio.

Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Okuyama, Tadashi.

Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Olah, George A.

Reactions of 2-, 3-, and 4-Quinolinols with Cyclohexane and Benzene in Superacids. 757

Ono, Katsuhiko.

[2π+2σ] Type Cycloaddition Reactions of Naphtho[*b*]cyclopropene with Trithiocarbonyl Compounds to Form 1,3-Dihydronaphtho[2,3-*c*]thiophene Derivatives. 773

Ono, Keiichiro.

Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Ono, Mikako.

Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

Ono, Noboru.

A New Synthesis of Mono- and Dibenzosapphyrins. 365

Oshitari, Tetsuta.

A Stereocontrolled Synthesis of Hapalosin. 185

Ouchi, Hidekazu.

Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

P

Park, Gyoosoon.

The Fungicidal Benzothiazole Methoxyacrylates: Synthe-

sis, Conformational Analysis and Fungicidal Activity. 793

Parmee, Emma R.
Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Patel, Reshma.
Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Pettigrew, Jeremy D.
Total Synthesis of (±)-Xyloketal D and Model Studies towards the Total Synthesis of (-)-Xyloketal A. 445

Prakash, G. K. Surya.
Reactions of 2-, 3-, and 4-Quinolinols with Cyclohexane and Benzene in Superacids. 757

Proost, Jef C.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Pyun, Sung-Jae.
Synthesis of (+)-1-Deoxygalactonojirimycin. 333

Q

Qin, Hongbo.
Synthesis of New Potentially Antiviral Furan-fused Compounds by Thermolysis of Benzocyclobutene Derivatives. 207

R

Ra, Choon Sup.
The Fungicidal Benzothiazole Methoxyacrylates: Synthesis, Conformational Analysis and Fungicidal Activity. 793

Raabe, Gerhard.
A Highly Flexible Route to 1,2,3,4,5,6-Hexahydro-5-hydroxypyrimidin-2-ones as Potential HIV Protease Inhibitors. 559

Rahman, Md. Moshfiqur.
Facial Selectivity in Nucleophilic Epoxidation of 3-Aryl-2-phosphonoacrylates Induced by the (-)-8-Phenylmenthyl Moiety as a Chiral Auxiliary. 251

Rasul, Golam.
Reactions of 2-, 3-, and 4-Quinolinols with Cyclohexane and Benzene in Superacids. 757

Rigby, James H.
Reactions of Arylhalocarbenes with Vinyl Isocyanates. 143

Rimmington, Stuart L.
Meisenheimer and Other Rearrangements of *N*-Oxides Derived from 2-Azabicyclo[2.2.1]hept-5-enes; the Influence of Reaction Conditions and Stereochemistry at Nitrogen. 679

S

Saito, Akiko.
Synthetic Studies of Proanthocyanidins. Part 5. Highly Stereoselective Synthesis and Inhibitory Activity of Maillard Reaction of 3,4-*trans* Catechin and Epicatechin Dimers, Procyanidin B1, B2, B3, B4 and Their Acetates. 479

Saito, Katsuhiro.
[2π+2σ] Type Cycloaddition Reactions of Naphtho[*b*]cyclopropene with Trithiocarbonyl Compounds to Form 1,3-Dihydronaphtho[2,3-*c*]thiophene Derivatives. 773

Saito, Nozomi.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Saiyinbilige.
A Stereocontrolled Synthesis of Hapalosin. 185

Sakamoto, Shuichi.
Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Sakamoto, Shuichi.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Sakamoto, Shuichi.
Regioselective Synthesis of 6- and 7-Substituted Thiazolo[3,2-*a*]benzimidazole Derivatives Using Crystallization Induced Regioisomerization. 815

Sannigrahi, Mousumi.
Cyclofunctionalization of Unsaturated Alcohols, Phenols, Acids, and Sulfonamides with 1-Benzenesulfinyl Piperidine and Trifluoromethanesulfonic Anhydride. 827

Santulli, Rosemary J.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Sasai, Hiroaki.
Spiro Bis(isoxazole) as a New Chiral Ligand. 831

Sato, Ohki.
Novel Heterocyclic Troponoids: Synthesis of Pyridoimidazotropolones and Related Compounds by the Reaction of 5-Nitrosotropolone with Several Azines. 535

Schmitt, Aaron C.
Facial Selectivity of the Sharpless Bromine Catalyzed Aziridination. 635

Seki, Koh-ichi.
Photo-induced C-C Bond Formation of 1,3-Dimethylthymine and Its Related Compounds with Naphthalene. 213

Shaheen, Shah M. I.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Shen, Chien-Chang.
Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Shibuya, Masayuki.
Developments of Enediyne Model Compounds Generating Biradicals with an Enhanced Radical Character – Regulation of Triggering Devices. 503

Shigenaga, Akira.
Developments of Enediyne Model Compounds Generating Biradicals with an Enhanced Radical Character – Regulation of Triggering Devices. 503

Shimada, Itsuro.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Shimizu, Kazuya.
Total Syntheses of Natural Pseurotins A and F_2 and Azaspirene. 161

Shimokoshi, Eri.
Synthesis and Properties of Azaperylenedicarboximide Derivative. 821

Shindo, Mitsuru.
A Formal Total Synthesis of (-)-Limaspermine. 787

Shinohara, Toshio.
Spiro Bis(isoxazole) as a New Chiral Ligand. 831

Shiraki, Ryota.
Total Syntheses of Natural Pseurotins A and F_2 and Azaspirene. 161

Shiro, Motoo.
Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Shishido, Kozo.
A Formal Total Synthesis of (-)-Limaspermine. 787

Shiwa, Kiyoko.
Acylation and Alkoxycarbonylation of Benzoxazoline-2-thione and Benzothiazoline-2-thione. 313

Singh, Kunwar A.
A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

Skerry, Paul S.
Meisenheimer and Other Rearrangements of *N*-Oxides Derived from 2-Azabicyclo[2.2.1]hept-5-enes; the Influence of Reaction Conditions and Stereochemistry at Nitrogen. 679

Smith, Catherine M.
Facial Selectivity of the Sharpless Bromine Catalyzed Aziridination. 635

Snider, Barry B.
Oxidative Addition of Chloro- and Dichloroacetic Acid to Alkenes to Give α-Chloro- and α,α-Dichlorobutyrolactones with Manganese(III) Acetate. 325

Soeda, Yukio.
A Formal Synthesis of a Muscarinic M_1 Receptor Antagonist, (-)-TAN1251A. 343

Somei, Masanori.
A Novel Preparation of 3-Hydroxy-3*H*-indole-3-ethanamines and -3*H*-indole-3-acetamides Having either a 4-Morpholinyl or 1-Pyrrolidinyl Group at the 2-Position. 437

Sugimura, Takashi.
Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Sugiura, Takayuki.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Suhara, Yoshitomo.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Sun, Chang-Ming.
Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Sung, Moo Je.
An Improved Synthesis of the Tricyclic Core of Sarains by a 3-Oxidopyridinium Betaine Cycloaddition. 407

Surve, Bhushan.
Cyclofunctionalization of Unsaturated Alcohols, Phenols, Acids, and Sulfonamides with 1-Benzenesulfinyl Piperidine and Trifluoromethanesulfonic Anhydride. 827

Sutherland, Alan G.
Solid-Phase Synthesis of Cyclic Glycopeptides Related to Mannopeptimycin Derivatives. 131

Suzuki, Ichiro.
Developments of Enediyne Model Compounds Generating Biradicals with an Enhanced Radical Character – Regulation of Triggering Devices. 503

Syumiya, Hiroki.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

T

Tadano, Kin-ichi.
Total Syntheses of Natural Pseurotins A and F_2 and Azaspirene. 161

Tae, Jinsung.
Synthesis of the Key Intermediates for the Core 3,4-Dihydroisocoumarin Structures of AI-77-B and Apicularen from *ortho*-Metallated Dianions of *t*-Butylbenzamides and Functionalized Epoxides. 137

Taguchi, Takeo.
Stereoselective Zirconocene-mediated Ring Transformation of 2-Vinylheterocycles to Vinylcarbocycles. 297

Tai, Akira.
Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Takagi, Ryukichi.
Facial Selectivity in Nucleophilic Epoxidation of 3-Aryl-2-phosphonoacrylates Induced by the (-)-8-Phenylmenthyl Moiety as a Chiral Auxiliary. 251

Takahashi, Takumi.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Takahata, Hiroki.
Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

Takao, Ken-ichi.
Total Syntheses of Natural Pseurotins A and F_2 and Azaspirene. 161

Takaoka, Shigeru.
Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

Takayama, Hiroaki.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Takayama, Jun.
A Formal Synthesis of a Muscarinic M_1 Receptor Antagonist, (-)-TAN1251A. 343

Takeuchi, Yasuo.
Concise Synthesis of 11*H*-Indolizino[1,2-*b*]quinolin-9-one by an Aryl-Aryl Coupling Reaction Using Pd Reagent. 803

Tamaru, Syunnichi.
Novel Heterocyclic Troponoids: Synthesis of Pyridoimidazotropolones and Related Compounds by the Reaction of 5-Nitrosotropolone with Several Azines. 535

Tanaka, Akira.
Synthetic Studies of Proanthocyanidins. Part 5. Highly Stereoselective Synthesis and Inhibitory Activity of Maillard Reaction of 3,4-*trans* Catechin and Epicatechin Dimers, Procyanidin B1, B2, B3, B4 and Their Acetates. 479

Tanaka, Masami.
Biotransformation of (-)-Maalioxide by *Aspergillus niger* and *Aspergillus cellulosae*. 655

Tanaka, Masato.
Computational Study on Conformational Features of Protonated 5*H*,7*H*-Dibenzo[*b*,*g*][1,5]dithiocin Oxides by *ab initio* MO Calculations. 235

Tanaka, Noriyuku.
Preparation and Structure of Di(2-azulenyl)ketene Adducts. γ-Lactone and β-Lactam Derivatives. 463

Tanaka, Tetsuaki.
Geometrically Selective Synthesis of Sulfur-containing Heterocycles by Intramolecular Pd-catalyzed Sulfinylzincation. 263

Tanaka, Tokiko.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Tandon, Vishnu K.
A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

Taylor, Richard T.
Syntheses of Oxazolidinone, Imidazolidinone and Thiazolidinone Derivatives Using a Polymer-supported Diphenylphosphoryl Azide. 869

Thornberry, Nancy A.
Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Toda, Fumio.
Acid-catalyzed Cyclization Reactions of 2,2'-Bis(diarylhydroxymethyl)biphenyls to 5,5,7,7-Tetraaryl-5,7-dihydrodibenzo[*c*,*e*]oxepins in the Solid State. 749

Tomoda, Shuji.
Preferential Conformation of the Six-membered Cyclic Compounds Bearing Both Trimethylsiloxy(or Methoxymethyleneoxy) and Tributylstannyl Groups at the Geminal Position. 229

Tounge, Brett A.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Toyota, Shinji.
Acid-catalyzed Cyclization Reactions of 2,2'-Bis(diarylhydroxymethyl)biphenyls to 5,5,7,7-Tetraaryl-5,7-dihydrodibenzo[*c*,*e*]oxepins in the Solid State. 749

Tsukamoto, Shin-ichi.
Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile.

127

Tsukamoto, Shin-ichi.
An Efficient Preparative Route to 7-Ethyl-1*H*-furo[2,3-*g*]indazole. 807

Tsukamoto, Shin-ichi.
Regioselective Synthesis of 6- and 7-Substituted Thiazolo-[3,2-*a*]benzimidazole Derivatives Using Crystallization Induced Regioisomerization. 815

Tsunetsugu, Josuke.
Novel Heterocyclic Troponoids: Synthesis of Pyridoimidazotropolones and Related Compounds by the Reaction of 5-Nitrosotropolone with Several Azines. 535

Tsurumaki, Kouichiro.
Novel Heterocyclic Troponoids: Synthesis of Pyridoimidazotropolones and Related Compounds by the Reaction of 5-Nitrosotropolone with Several Azines. 535

U

Ubukata, Makoto.
Synthetic Studies of Proanthocyanidins. Part 5. Highly Stereoselective Synthesis and Inhibitory Activity of Maillard Reaction of 3,4-*trans* Catechin and Epicatechin Dimers, Procyanidin B1, B2, B3, B4 and Their Acetates. 479

Uno, Hidemitsu.
A New Synthesis of Mono- and Dibenzosapphyrins. 365

V

van Leusen, Albert M.
A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

van Nispen, Simon P. J. M.
A New and Convenient Route to Synthesis of Enynones and Dienones from TosMIC. 357

Vanucci-Bacqué, Corinne.
New Access to Chiral Cyclic ω-Oxygenated β-Enamino Esters by Intramolecular Aminocyclisation Reactions. 839

Voight, Eric A.
Facial Selectivity of the Sharpless Bromine Catalyzed Aziridination. 635

W

Wagaman, Michael W.
A Concise Synthesis of an Indenopyrrolidine-based Dual $\alpha_v\beta_3/\alpha_v\beta_5$ Integrin Antagonist. 543

Wakita, Kazuhiko.
Spiro Bis(isoxazole) as a New Chiral Ligand. 831

Waku, Keizo.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Wang, Dao-Lin.
Reactions of 4-Methoxy-2-(4-methoxyphenyl)-9-oxocyclohepta[*b*]pyrylium Perchlorate with Active Methylene Compounds. 667

Wang, Ting-Zhong.
Solid-Phase Synthesis of Cyclic Glycopeptides Related to Mannopeptimycin Derivatives. 131

Watanabe, Eriko.
A New Synthesis of Mono- and Dibenzosapphyrins. 365

Watanuki, Susumu.
Acid-mediated Cyclization of 3-Benzoyl-2-cyanobutyronitrile to 2-Amino-4-methyl-5-phenylfuran-3-carbonitrile. 127

Weber, Ann E.
Heterocycle Fused Cyclohexylglycine Derivatives as Novel Dipeptidyl Peptidase-IV Inhibitors. 203

Wei, Chia-Ling.
Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Wheless, Karen L.
Solid-Phase Synthesis of Cyclic Glycopeptides Related to Mannopeptimycin Derivatives. 131

Williams, David R.
Aldol Reactions of Unsubstituted β-Lactams. Studies of a β-Glycine Enolate Equivalent. 167

Williams, Sheldon.
Synthesis and Electrospray Ionization Mass Spectrometric Evaluation of the Metal Cation Complexation Behavior of Cage-annulated Azacrown Ethers. 279

Wilson, Peter D.
Total Synthesis of (±)-Xyloketal D and Model Studies towards the Total Synthesis of (-)-Xyloketal A. 445

Wortmann, Lars.
A Highly Flexible Route to 1,2,3,4,5,6-Hexahydro-5-hydroxypyrimidin-2-ones as Potential HIV Protease Inhibitors. 559

Wu, Tsao-Chin.

Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Cycloadditions. 121

Y

Yagi, Suguru.
Geometrically Selective Synthesis of Sulfur-containing Heterocycles by Intramolecular Pd-catalyzed Sulfinylzincation. 263

Yamada, Fumio.
A Novel Preparation of 3-Hydroxy-3*H*-indole-3-ethanamines and -3*H*-indole-3-acetamides Having either a 4-Morpholinyl or 1-Pyrrolidinyl Group at the 2-Position. 437

Yamaguchi, Kohei.
Asymmetric Hydrogenation of Furan-containing Ketones over Tartaric Acid-modified Raney Nickel Catalyst. 375

Yamamoto, Yutaka.
Regioselective Aromatic Substitution of 6,8-Dihydroxy-4-ethoxycarbonyl-2*H*-isoquinolin-1-one Derivatives Using the Stille Coupling Reaction. 491

Yoder, Ryan A.
Enantioenriched Axially Chiral β-Diketimines: Determination of the IAN-amine Barrier to Atropisomerization. 223

Yoneda, Akiko.
Endoperoxidation of 9,10-Bis(1-hydroxyalkyl)anthracenes and Successive Formation of 9,10-Anthraquinone under Grignard Reaction Conditions. 153

Yoshida, Akihiro.
Synthesis of Novel 1α,25-Dihydroxy-19-norvitamin D_3 with an Amide Conjugate. 423

Yoshigami, Ryoko.
Geometrically Selective Synthesis of Sulfur-containing Heterocycles by Intramolecular Pd-catalyzed Sulfinylzincation. 263

Young, David G. J.
Regioselectivity of Intramolecular Nitrile Oxide-Allene Cycloadditions. 121

Yu, Hsi-Jung.
Asymmetric Synthesis of Panaxydol and Its Stereoisomers. 857

Z

Zeng, Dongxiang.
Regioselectivity of Intramolecular Nitrile Oxide-Allene

Subject Index Volume 62, 2004

A

ab initio MO Calculation 235
Absorption Spectra 821
Acid-catalyzed Reaction 749
Acid-mediated 127
Acid Treatment 453
Activation of Electrophile 127
Acylation 313
AIDS 559
Alkoxycarbonylation 313
Alkyne 387
1-Alkynyl Sulfoxide 263
Allene 121
Allylation, Intramolecular 299
Z-Allylic Zirconocene 297
π-Allyltricarbonyliron Complex 619
Amide Bond 423
4-Amino-1-alken-3-ol 185
Aminocarbazole 779
β-Amino Carbonyl Derivative 217
Aminocyclization 839
β-Amino Ester 167
2-Amino-4-methyl-5-phenylfuran-3-carbonitrile 127
Anthramycin 693
Antitumor Antibiotic 693
"3+2" Approach 365
Aralkyl Halide 357
Aromatic Oxidation 343
Aromatization 807
3-Aryl-2-phosphonoacrylate 251
Aspergillus cellulosae 655
Aspergillus niger 655
Asymmetric Dihydroxylation 713, 857
Asymmetric Reaction 643
Asymmetric Synthesis 223, 559
Atropisomerization 223
Axially Chiral Pyridine 223
Azacrown Ether 279
Azaspirene 161
Azasugar 333
Azetidin-2-one 167
Azetine 217
Azine 535
Aziridine 297
Aziridinium Ion 877
Azulene 463

B

Benzocyclobutene 207
Benzothiazole 197, 793
Benzothiazoline 197
Benzothiazoline-2-thione 313
Benzoxazoline-2-thione 313
Biaryl Coupling 803
Bicyclic Oxazine 679
Bicyclic *N*-Oxide 679
Bicyclo[2.2.2]octadiene 365
Biotransformation 655
Bipyrrole 365
Biradical 503
9,10-Bis(1-hydroxyalkyl)anthracene-9,10-anthraquinone 153
Bromoisoquinoline 821
Bromonium Ion 635
Bromoquinolinomethylpyridone 803

C

Carbene 143
Carbenic Behavior 773
Carbocation 583
Carbocation Intermediate 453
Chiral Auxiliary 251
Chiral Ligand 831
Chiral Synthesis 343
Chlorotitanium Enolate 217
Claisen Reaction 735
Condensation 779
Conformational Analysis 229, 793
Conjugate Addition 407
Cope Elimination 679
Corticotropin-Releasing Factor 191
Coupling Constant 229
Coupling Reaction 821

Crystallization Induced Isomerization 815
Curtius Rearrangement 869
Cyanohydrin 643
Cyclic Sulfoxide 263
Cyclization 127, 131, 325, 779, 827
Cycloaddition 121, 143, 387, 445, 543, 583
1,4-Cycloaddition 213
[4+3] Cycloaddition 407
Cycloaromatization 503
Cyclobutylamine 877
Cyclopropane 143

D

Dehydration 807
Dehydroxylation 815
N-Deoxygenation 847
Depression 191
Dianion 137
Diastereoselectivity 735
Diazulenylketene 463
Dicarboxylic Acid 399
Dihydrofuran 445
3,4-Dihydroisocoumarin 137
Dihydropyranone 179
Dihydroxylation 333
1α,25-Dihydroxy-19-norvitamin D_3 423
(3*S*,5*S*)-3,5-Dihydroxypiperidine 423
β-Diketimine Ligand 223
1,3-Dimethylthymine 213
Dipeptidyl Peptidase IV 203
Dipolar 543
Dithiocin 235
Dithiocrown Ether 149
DNA Sequence Specific Binding 693

E

Eight-membered Ring 235
Electron Density 773
Electrospray Ionization Mass Spectrometry 279
Enamine 437
β-Enamino Ester 839
Enantio-differentiating Hydrogenation 375
Enantioselective Reduction 857
Endoperoxidation 153
Ene Reaction 735
Enediyne 503
Enol Ether 179
Enyne-Allene 503
Epicatechin Dimer 479
Epoxidation 251
Epoxide 137

F

Facial Selectivity 251
Fisher Indole Synthesis 203
Fluorescence Spectra 821
Friedel-Crafts Reaction 749
Fungicidal Activity 793
Furan 207, 583

G

(-)-Gloeosporone 619
D-Glucose 161
Glycocidase Inhibitor 333
Glycolate Alkylation 179
Glycosylation 131
Grignard Reagent 153

H

Hantzsch Synthesis 203
Heterogeneous Catalysis 375
High Pressure Synthesis 643
HIV 559
5-HT_{2C} Receptor Agonist 807
Hydrazone 559
Hydrometallation 217
β-Hydroxy Azide 635
Hydroxyalkynoate 839
1-Hydroxyindole 437
3-Hydroxy-3*H*-indole-3-acetamide 437
1-Hydroxyindole-3-ethanamine 437
3-Hydroxy-3*H*-indole-3-ethanamine 437
Hypervalent Iodine Reagent 343

I

IAN Amine 223
Imidazolidinone 869
Inclusion Complex 749
Indole Alkaloid 787
Indole Fused Cyclohexyl Glycine 203
Indolizinoquinolone 803
Integrin 543
Iodination 491
Ionic Process 773
Isocyanate 143
2*H*-Isoquinolin-1-one 491
Isoselenocyanate 521
Isothiocyanate 779
Isoxazole 831

K

Ketalization 131
Ketene 463
Ketenimine 521
β-Keto Ester 375
Kinetic Resolution 185

L

Lactam 463
γ-Lactam Natural Product 161
Lactone 325, 463, 827
Lactonization 137
Limaspermine 787
Lipase 185
Liquid Membrane 149
Lithium Naphthalenide 619

M

Maalioxide 655
Maillard Reaction Inhibitor 479
Manganese Acetate 325
Mannich Base 445
Marine Natural Product 179
Meisenheimer Rearrangement 679
Mercury Ion 149
Metal Cation Complexation 279
ortho-Metallation 137
Methanopyrrolidine 877
Methoxyacrylate 793
N-Methylation 847
mGluR Ligand 815
Microcarpalide 713
Microwave 851
Minor Groove Binder 693
Molecular Receptor 399
Molecular Recognition 213
Multidrug Resistance 185
Multi-Kilogram Synthesis 807
Muscarinic M_1 Antagonist 343

N

Naphthalene 213
Neocarzinostatin 503
Nitrile 217
Nitrile Oxide 121
5-Nitrosotropolone 535
Nitrosotropolone Acetate 535
Nonenolide 713
Nonenzymatic Browning Reaction 479
C-Nucleophile 667
Nucleophilic Reaction 667
Nucleophilicity 535

O

Olefin Cross Metathesis 713
Optically Active Alcohol 375
8-Oxabicyclo[3.2.1]octadienone 387
Oxane 229
4*H*-1,3-Oxazin-4-one 491
Oxazolidine 839
Oxazolidinone 869
Oxazoline 333
Oxidation 197, 325

3-Oxidopyridinium Betaine 407
Oxirane 297
Oxirane Cleavage 453
Oxyallyl 407
Oxy-Cope Reaction 735
1,5-Oxygen Rearrangement 235

P

Palladium 803, 831
Palladium(II)-Carbonylation 173
Pailadium Catalyst 851
Panax ginseng 857
Panxydol 857
Pd-Catalyst 263
Peptidomimetic 167
Phenylboronic Acid 851
(*S*)-1-Phenylethylamine 839
(-)-8-Phenylmenthyl 251
O-Phosphorylation 847
Photocyclization 877
Photolysis 313
Photoreaction 213
Piperidine 333
Ptagiochila sciophila 655
Ptakortone E 173
Polycarbocyclic Cage Compound 279
Polymer-supported Reagent 869
Polyphenol 479
Protease 559
Pseurotin A 161
4-Pyrazolone 1,2-Dioxide 387
Pyridazine *N*-Oxide 357
Pyridazinone 851
Pyridine *N*-Oxide 357
Pyridinone 167
Pyridoimidazotropolone 535
Pyrimidine, Fused 191
Pyrrolidinone 143
Pyrylium 3-Oxide 387
Pyrylium Salt 667

Q

Quinodimethane 207
Quinolinol, Isomeric 749
ortho-Quinone Methide 445

R

Radical 325
Reduction 749
Reductive Iron Decomplexation 619
Regioselective Synthesis 815
Retro Diels-Alder Reaction 365
Ring-closing Metathesis 179, 713, 787
Ring Closure Reaction 821
Ring-opening 667

S

Sapphyrin 365
Scandium Triflate 197
Selenaheterocycle 521
Selenet-2(2*H*)-imine 521
Sharpless Bromine-catalyzed Aziridination 635
Singlet Oxygen 153
Solid State Reaction 749
Solvent Effect 773
Spiro Skeleton 831
Steering Effect 153
Stereochemistry 679
Stille Coupling Reaction 491
Strained Structure 773
Strobilurin 793
Sulfinamide 827
Sulfinylzincation, Intramolecular 263
Sulfonamide 827
Superacid 749
Superelectrophilic Activation 749
Suzuki Coupling 851

T

TAN1251A 343
Tandem Reaction 735
Tannin, Condensed 479
Thiane 229

Thiazole Fused Cyclohexyl Glycine 203
Thiazolidinone 869
Thiazolo[3,2-*a*]benzimidazole 815
Thioether 827
Thionium Ion 583
Thiophene 399
Titanium Catalyst 643
Tosylaziridine 635
Transannular Interaction 235
Transesterification 693
Transition State 121
Tributylstannylnaphthalene 821
Tricyclohexylphosphine 803
Triflation 491
Trifluoroacetic Acid (TFA) 127
Trimethylsilylcyanation 643
Trithiocrown Ether 149
Tröger's Base 399
Tropone 149

V

$\alpha_v\beta_3$ 543
Vitamin D Receptor 423
Vitamin D_3, 2-Substituted 423

W

Wacker-type Cyclization 831

Y

YM348 807

Z

Zirconocene Equivalent 297